Serial No.: 10/535,163

Filed: May 16, 2005

Page : 2 of 8

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-23. (canceled)

24. (Currently Amended) A toothbrush head for an electric toothbrush, the toothbrush head comprising a brush head carrier that is releasably connectable to a hand piece of an electric toothbrush, the brush head carrier comprising:

a brush head carrier housing having a free end configured to be releasably connected to an electric toothbrush hand piece;

a translator element rotatable about a longitudinal rotation axis within the brush head carrier housing;

a plurality of bristle supports that each carry a respective bristle set and are movably mounted on the brush head carrier housing; and

a plurality of drive couplers, each drive coupler being coupled to a respective bristle support and eccentrically coupled to the translator element by an eccentric driver, such that each of the bristle supports is oscillated in response to rotation of the translator element, at least one of the bristle supports coupled so as to rotate in oscillation about an axis of rotation extending transverse to the longitudinal rotation axis of the translator element;

wherein the plurality of bristle supports includes

a main bristle support rotatable about an axis of rotation essentially perpendicular to the longitudinal rotation axis of the translator element; and

an auxiliary bristle support pivoted about a pivot axis essentially perpendicular to the longitudinal rotation axis of the translator element and disposed near an edge of the auxiliary bristle support nearest the main bristle support, such that an end of the auxiliary bristle support

Serial No.: 10/535,163 Filed: May 16, 2005

Page : 3 of 8

remote from the main bristle support oscillates laterally as the auxiliary bristle support pivots about the pivot axis; and

wherein the pivot axis is arranged approximately parallel to a main bristle direction of bristles of the auxiliary bristle support.

- 25. (Previously Presented) The toothbrush head of claim 24 wherein the eccentric driver comprises a driver pin.
- 26. (Previously Presented) The toothbrush head of claim 25 wherein the driver pin moves in an orbit that includes at least a partial cylinder segment relative to the rotation axis of the translator element.
- 27. (Canceled)
- 28. (Previously Presented) The toothbrush head of claim 24 wherein the brush head carrier is non-rotatably coupled to the hand-piece.
- 29. (Previously Presented) The toothbrush head of claim 24 wherein each of the bristle supports has its own axis of motion transverse to the longitudinal axis.
- 30. (Canceled)
- 31. (Previously Presented) The toothbrush head of claim 24 wherein the main bristle support is disposed at a distal end of the brush head carrier.
- 32-36. (Canceled)
- 37. (Previously Presented) The toothbrush head of claim 25 wherein the driver pin is coupled to at least one of the drive couplers at a coupling that allows for relative pivoting of the coupled driver coupler with respect to the driver pin, to compensate for angulation between the

Serial No.: 10/535,163 Filed: May 16, 2005

Page : 4 of 8

eccentric driver and a corresponding bristle support.

38. (Previously Presented) The toothbrush head of claim 24 wherein at least one of the drive couplers is coupled to the eccentric driver with a translational degree of freedom, allowing translational motion in a direction transverse to the longitudinal rotation axis of the translator element.

- 7 39. (Previously Presented) The toothbrush head of claim 38 wherein the eccentric driver is guided within a longitudinally slotted clearance space defined within said at least one of the drive couplers.
 - 40. (Previously Presented) The toothbrush head of claim 38 wherein one of the bristle supports defines a sliding surface that extends transverse to a longitudinal axis of the toothbrush head and on which the eccentric driver is adapted to slide.
 - 41. (Previously Presented) The toothbrush head of claim 40 further including a biasing device biasing the sliding surface against the eccentric driver.
 - 42. (Previously Presented) The toothbrush head of claim 24 wherein at least one of the drive couplers is constructed such that forces and movements are transmitted exclusively in a direction transverse to a longitudinal direction of the toothbrush head.
 - 43. (Previously Presented) The toothbrush head of claim 42 wherein the drive couplers are free to move in a plane containing a longitudinal direction of the toothbrush head and being force-transmitting in a plane perpendicular thereto.
 - 44. (Previously Presented) The toothbrush head of claim 24 wherein at least one of the drive couplers is constructed such that forces and movements are transmitted in a direction transverse to a longitudinal direction of the toothbrush head and forces are transmitted in the longitudinal direction of the toothbrush head, and wherein the driver is mounted on the translator element for

Serial No.: 10/535,163

Filed : May 16, 2005

Page: 5 of 8

displacement in the longitudinal direction.

45. (Previously Presented) The toothbrush head of claim 24 wherein at least one of the drive couplers is integral with its respective bristle support and in positive engagement with the driver.

- 46. (Previously Presented) The toothbrush head of claim 24 further comprising a spring biasing the eccentric driver against at least one of the bristle supports.
- 47. (Previously Presented) The toothbrush head of claim 24 wherein the translator element comprises a disengageable rotary coupling adapted to engage a drive element of a toothbrush hand piece.
- 48. (Previously Presented) The toothbrush head of claim 24 wherein at least one of the bristle supports carries bristle tufts tilted in varying orientations, of varying cross sections, of varying lengths, or tilted at varying angles.
- 49. (Previously Presented) An electric toothbrush comprising:a hand piece equipped with an electric drive; andthe toothbrush head of claim 24 releasably secured to the hand piece.
- 50. (Canceled)
- 51. (Previously Presented) A toothbrush head for an electric toothbrush, the toothbrush head comprising a brush head carrier that is releasably connectable to a hand piece of an electric toothbrush, the brush head carrier comprising:

a translator element rotatable about a longitudinal rotation axis within the brush head carrier and carrying a driver eccentrically disposed with respect to a rotational axis of the translator element;

a plurality of bristle supports that carry a respective bristle set and are movably mounted on the brush head carrier; and

Serial No.: 10/535,163 Filed: May 16, 2005

Page : 6 of 8

a plurality of drive couplers, each drive coupler being coupled to a respective bristle support and eccentrically coupled to the translator element by the driver, such that each of the bristle supports is oscillated in response to rotation of the translator element;

wherein at least one of the drive couplers is constructed such that forces and movements are transmitted in a direction transverse to a longitudinal direction of the toothbrush head and forces are transmitted in the longitudinal direction of the toothbrush head, and wherein the driver is mounted on the translator element for displacement in the longitudinal direction.

52. (Previously Presented) A toothbrush head for an electric toothbrush, the toothbrush head comprising a brush head carrier that is releasably connectable to a hand piece of an electric toothbrush, the brush head carrier comprising:

a translator element rotatable about a longitudinal rotation axis within the brush head carrier and carrying an eccentric driver;

a plurality of bristle supports that carry a respective bristle set and are movably mounted on the brush head carrier;

a plurality of drive couplers, each drive coupler being coupled to a respective bristle support and eccentrically coupled to the translator element by the eccentric driver, such that each of the bristle supports is oscillated in response to rotation of the translator element; and

a spring disposed between the translator element and the eccentric driver and biasing the eccentric driver against at least one of the bristle supports.

53. (Canceled)

54. (New) A toothbrush head for an electric toothbrush, the toothbrush head comprising a brush head carrier that is releasably connectable to a hand piece of an electric toothbrush, the brush head carrier comprising:

a brush head carrier housing having a free end configured to be releasably connected to an electric toothbrush hand piece;

a translator element rotatable about a longitudinal rotation axis within the brush head carrier housing;

Serial No.: 10/535,163 Filed: May 16, 2005

Page : 7 of 8

a plurality of bristle supports that each carry a respective bristle set and are movably mounted on the brush head carrier housing; and

a plurality of drive couplers, each drive coupler being coupled to a respective bristle support and eccentrically coupled to the translator element by an eccentric driver, such that each of the bristle supports is oscillated in response to rotation of the translator element, at least one of the bristle supports coupled so as to rotate in oscillation about an axis of rotation extending transverse to the longitudinal rotation axis of the translator element;

wherein the plurality of bristle supports includes

a main bristle support rotatable about an axis of rotation essentially perpendicular to the longitudinal rotation axis of the translator element; and

an auxiliary bristle support pivoted about a pivot axis essentially perpendicular to the longitudinal rotation axis of the translator element and disposed near an edge of the auxiliary bristle support nearest the main bristle support, such that an end of the auxiliary bristle support remote from the main bristle support oscillates laterally as the auxiliary bristle support pivots about the pivot axis;

wherein at least one of the drive couplers is coupled to the eccentric driver with a translational degree of freedom, allowing translational motion in a direction transverse to the longitudinal rotation axis of the translator element; and

wherein one of the bristle supports defines a sliding surface that extends transverse to a longitudinal axis of the toothbrush head and on which the eccentric driver is adapted to slide, the toothbrush head further including a biasing device biasing the sliding surface against the eccentric driver.